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Evaluating prediction

Soviet Military Power in the 1980s

James A. Barry

In 1987, John Lewis Gaddis, the eminent diplomatic historian, published an article entitled "How the Cold War Might End." Four years later, he republished it, with comments and the subtitle, "An Exercise in Faulty Prediction." In this evaluation, Gaddis concludes that his predictions were at best mixed, and makes several recommendations to his fellow historians on how to improve their understanding of events and processes.

In 1981, the CIA's National Foreign Assessment Center (NFAC—subsequently renamed the Directorate of Intelligence) published a study entitled The Development of Soviet Military Power: Trends Since 1965 and Prospects for the 1980s. It was the culmination of a two-year, multidisciplinary research effort aimed at describing and evaluating the strategic, technological, political, and economic factors that would influence Soviet military forces and policies in the coming decade. The NFAC effort was intended to provide an intellectual foundation for intelligence support for the national security policies of a new administration.

Like Gaddis's article on the Cold War, the NFAC study had a mixed record. And no one who participated in the research effort would have predicted that, barely 10 years after the study's publication, Soviet military power as such would cease to exist. Thus, it seems worthwhile that we, like Gaddis, reexamine our assessment. What did we get right? What did we get wrong? What did we miss? And it seems appropriate as well to ask: what could we have done to improve our record and what difference would it have made?

This article tries to probe these questions by adopting Gaddis's method. In the sections that follow, excerpts from the 1981 paper are reprinted in italics, followed by comments made with the benefit of hindsight. In the conclusion, an attempt is made to draw some lessons about the capabilities and limitations of intelligence analysis and its influence on policy decisions.

The CIA's Projections

As the Soviet leaders formulate their defense plans for the future, they face major external and domestic uncertainties:

- The fluid international situation dictates a prudent defense posture and the Soviets' perceptions of emerging military threats argue especially for continued qualitative improvement in forces.
- On the other hand, to maintain even a modest rate of economic growth, those leaders must allocate more resources to capital investment and must improve labor productivity, in part by providing a rising standard of living.

This dilemma could cause political tension, particularly at a time of leadership transition.

This was an accurate statement of the problem. The Soviets and Western analysts were facing what Gaddis calls paradigm fratricide. They were subject to countervailing pressures and could not predict which would win out. The dilemma certainly did cause political tension!

In the international arena, the Soviets are concerned by the prospect that the US will augment its defense effort, by China's opening to the West, and by the possibility that US opposition to Soviet global aspirations will increase. They are troubled by instability on their borders—an insurgency in Afghanistan that they have been unable to suppress, an unpredictable regime in Iran whose fundamentalist Islamic ideology could spread to Muslim minorities in the USSR, and a major threat to Communist Party control in Poland. They probably view the 1980s as a decade of heightened competition, in which they will run a greater risk of military confrontation with the US and of actual combat with major powers.

All of the Soviets' worst fears (except the last) came true!

As they attempt to react to the wide array of situations they perceive as either promising or threatening, Soviet policymakers will face a far more constrained resource picture than in the 1960s and 1970s.

- Soviet economic growth, which has been declining since the 1950s, has slowed to a crawl in the past several years. The real average annual growth in GNP in 1979 and 1980 was a little over 1 percent—the worst in any two-year period since World War II.
- In the 1980s, developing energy and demographic problems probably will hold GNP growth to an average of 2 percent or less—only half the rate at which defense expenditures have been growing.
- If military spending is allowed to follow its past trend, its share of economic output could increase from about one-eightle now to over one-sixth in 1990.
- More importantly, this increased military burden would reduce significantly the share of the annual increment to GNP that can be distributed among civilian claimants to ease the political tensions that arise from competition for resources. Military programs—especially those for nonstrategic forces—divert key resources from the production of critically needed equipment for agriculture, industry, and transportation.

This forecast was essentially accurate, perhaps even a bit optimistic. According to later CIA estimates, economic growth did hover around 2 percent for most of the 1980s. (Some Soviet economists, as well as Western critics of CIA analysis, had even lower figures.) Military spending continued to rise through 1988, when Gorbachev announced unilateral military reductions and a reduction in the defense budget by some 14 percent over a two-year period. His unilateral reductions concentrated first on conventional forces, to release manpower and production resources for the civilian economy.

The problems of Soviet leaders in allocating resources could be further complicated by a political succession. Soviet President Brezhnev is 74 and in poor health, and most of his colleagues are also in their seventies, many of them also ailing. The departure of these men could affect military policy but probably not immediately. The process of Soviet national security planning and decisionmaking is liighly centralized, secretive, and resistant to fundamental change. It is strongly influenced by military and defense-industrial organizations, represented by men who have held their positions for niany years, providing a continuity of plans and programs. Because of this momentum, and the political clout of the men and institutions that support defense programs, we doubt that Soviet emphasis on nullitary power would decrease in the early stages of leadership succession.

Not a bad call. The momentum continued for several years after Brezhnev's death, through the tenures of Andropov and Chernenko. It was the third political succession, from Chernenko to Gorbachev, that made the big difference. Gradually, the defense policy process began to open up and the previously sacrosanct defense-industrial sector of the economy had to shoulder part of the burden of diminished economic performance.

In contrast to the imponderables of the economic and political environments, we have a good capability to identify most future Soviet weapon systems. The forces of the 1980s will be equipped primarily with systems already in the field and secondarily with those now entering production or in late stages of development. (Because it takes a decade or more to develop and test modern weapon systems, few of those now in early stages of development could be introduced in significant numbers in the 1980s.) We believe that we have identified about 85 percent of the new systems likely to be introduced in this decade. Knowing Soviet military requirements and the amount of available development and production resources, we can postulate others. These identified and postulated systems, plus existing systems, will make up well over 90 percent of the weapons in the field in 1990.



We did get most of the weapon systems right. We sometimes were overly optimistic, however, about when they would become operational and about their rates of deployment. Of the systems that we projected, more than 90 percent were deployed, and most within a year or two of the estimated date. Those that we missed fell into three categories: systems in early stages of technology demonstration that we misinterpreted as prototype weapons; high-technology weapons that the Soviets found unusually challenging to develop and produce; or systems not scheduled for production until the late 1980s, when economic and political turmoil had begun to disrupt military programs.

Because changes in political and economic conditions could lead to discontinuities in policy, we present three alternative projections: two that require an acceleration in the growth of military spending and one that requires an absolute reduction. We consider all these to be less likely than the baseline projection but present a discussion of them intended to suggest reasonable limits to the options open to Soviet policymakers.

This was a good idea. It is beneficial to acknowledge our uncertainty and explore scenarios that could make a difference to US policy. Most National Intelligence Estimates (NIEs), and many DI papers, now give "alternative futures." The problem is, as discussed below, that we were not quite adventure-some enough in our alternative projections and failed to follow up with a systematic effort to see if our baseline projection was consistent with evolving Soviet reality. The fact that we included two scenarios involving an increased military program and only one that postulated a reduction seems in retrospect to have been misleading.

Baseline Projection. For our baseline projection we estimate—on the basis of the weapon production and development programs we have identified—that the Soviets will continue their policy of balanced force development. Within the outlines of this continuity, however, we expect them to increase their emphasis on strategic forces that can survive a US attack, on strategic defense, and—to a lesser extent—on forces for the projection of Soviet power to distant areas. Manpower constraints will limit increases in the size of forces, but improvements will continue rapidly as new weapons become available. Improvements in

Soviet military forces will lead to growing capabilities in many areas, including some areas of traditional Western strength.

Yes on balanced force development and survivable strategic forces, yes and no on strategic defense, and WRONG on power projection forces, which were built up to a lesser extent than we anticipated. We underestimated the influence that the Afghan imbroglio would have on Soviet ambitions in the Third World, and misread some of the military programs as suggesting greater interest in projecting power overseas.

We expect the Soviets to carry out programs aimed at maintaining or increasing their lead over the US in most measures of intercontinental nuclear attack capability and at upgrading their nuclear warfighting capabilities. They will continue to improve the accuracy of their ICBMs and will develop a variety of payload options for responding to US deployment of new ICBMs. As a result, the Soviet ICBM force—with or without the SALT II Treaty—will have the theoretical potential to destroy most of the warheads on US land-based missiles throughout the decade. This potential will be greatest in the early 1980s, before the US can deploy a new ICBM. But even in that early period, US forces could conduct a massive retaliatory strike.

Pretty good. By 1989, according to NIEs, the USSR had the capability to launch preemptive strikes or to "launch on warning" against a comprehensive set of targets in North America and Eurasia, including attacking US missile silos with two warheads each. (NIEs of the early 1980s had enormous detail about this potential vulnerability of US retaliatory forces—an obsession of US military planners of that period.) But the Soviets still could not destroy US ballistic missile submarines, bombers on alert or in flight, or dispersed mobile ICBMs.

To maintain survivable strategic forces in the face of a potential threat to their own fixed, land-based missiles, we expect the Soviets to increase the capability of their submarine-launched ballistic missiles Selected Soviet Weapon Systems: Projected and Actual Initial Operational Capability (IOC)

Weapon System	Projected IOC	Actual IOC	Comments
Medium solid ICBM	Early 1980s	1987	Designated SS-24
Small solid ICBM	Early 1980s	1985	- Designated SS-25
SS-N-20 SLBM	Mid-1980s	1983	Delinginated 55-25
New long-range bomber	Late 1980s	1988	Nicknamed "Blackjack"
Wide-body eruise missile aireraft	Late 1980s		Not deployed
SA-10 SAM	Early 1980s	1980	
New airborne warning and control aircraft	Early 1980s	1984	Nicknamed "Mainstay"
Two new interceptors	Mid-1980s	1984 and 1986	Nicknamed "Flanker" and "Fulcrum"
Two new ABM missiles	Mid-1980s	1989	Nicknamed "Gorgon" and "Gazelle"
Possible ground-based laser air # defense system	Late 1980s		Not deployed
SA-II SAM	Early 1980s	1980	
Γ-80 tank	Early 1980s	1981	
Γ-80 follow-on tank'	Mid-1980s	1984	Upgraded version rather than new design
New ground support aircraft	Early 1980s	1984	Nicknamed aircraft "Frogfoot"
New attack helicopter	Late 1980s	1991	Nicknamed "Havoe"
SS-23 SRBM	Early 1980s	1985	Trockiance Travec
New SRBM	Late 1980s		Not deployed; SRBMs limited by INF Treaty
New cruise missile ubmarine	Early 1980s	1982	Oscar-class
luelear-powered aircraft arrier	Late 1980s	1991	Admiral Kuznetsov-class; not nuclear powered
lew heavy transport ircraft	Mid-1980s	1986	Nicknamed "Condor"

and possibly (especially in the absence of SALT constraints) to deploy land-mobile ICBMs. They may introduce a new strategic bomber or an aircraft to carry long-range cruise missiles, and they may already be testing a sea-launched strategic cruise missile.

All of the above. Clearly, the Soviets perceived an emerging threat to their own forces—a threat that was embodied in collection tasking to their own intelligence services. For their strategic forces, the Soviets deployed the rail-mobile SS-24 ICBM and the road-mobile SS-25. By 1989, there were six Typhoon-class ballistic missile submarines, each carrying 20 ballistic missiles with multiple warheads. Other modernized submarines were equipped with new missiles, some of which had a limited capability to attack hard targets such as US missile silos. A new long-range, supersonic bomber was introduced in 1988 (although the Soviets apparently scaled back the number produced) and the Soviets developed airlaunched and submarine-launched long-range cruise missiles.

Should strategic arms control negotiations be resumed, these weapon developments could complicate monitoring an already difficult US intelligence task. Land-mobile strategic weapons and cruise missiles cannot be counted with high confidence. As a result, monitoring strategic arms control agreements will be much more difficult in the 1980s than it was in the 1970s.

Yes. We did not envision, however, that the USSR would tolerate intrusive on-site inspection that has made monitoring the INF and START treaties more feasible.

The Soviets continue their antiballistic missile (ABM) programs, but the technical difficulties of detecting, identifying, and intercepting ballistic missiles have kept progress slow. Moreover, the deployment constraints of the 1972 ABM Treaty severely limit the effectiveness of defenses against missiles. (Should the Soviets abrogate the treaty, they could deploy ABM defenses widely in the latter half of the decade.) We expect continuing Soviet interest in antisatellite defenses and in high-technology systems for strategic

defense. Possible developments in the late 1980s could include a space-based antisatellite laser system and a few laser air defense weapons. Continuing civil defense efforts will improve protection for the leaders and essential work force, but not for the general population or for military or economic facilities. Soviet capabilities against ballistic-missile-launching submarines will remain poor.

This projection was accurate, except in the case of the laser programs. The Soviets continued through the 1980s to devote about as much investment to strategic defenses as they did to strategic offensive programs. They modernized the ABM system around Moscow. They did not abrogate the treaty and incur the expense of a nationwide ABM system. The small number of ABM launchers and associated radars made the system highly vulnerable and ineffective against large-scale attacks, and in retrospect we probably overestimated the possibility of an "ABM breakout." They continued to work on laser systems for defense, but they did not deploy operational weapons. Although a major effort to provide protection for the leadership continued, civil defense programs for the general population and the economy remained selective and ineffective. An extensive antisubmarine warfare (ASW) effort continued, but by 1989 the Soviets remained incapable of threatening US ballistic missile submarines in the open ocean.

We project that, despite the widespread Western deployment of counterforce weapons in the 1980s, the Soviets will maintain the capability to destroy most of the US population and industry in a retaliatory strike. Conversely, despite their own growing counterforce and defensive capabilities, they will not in the 1980s be able to prevent a devastating retaliatory strike by remaining Western ICBMs and air- and submarine-launched weapons.

A net assessment. This is not our job, strictly speaking, but it is generally accurate. The "balance of terror" remained a central feature of the US-Soviet

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relationship throughout the decade, although by the end of the 1980s the Soviets had scaled back some of their strategic nuclear programs. As recently as 1990, analysts were debating whether this presaged a new doctrine of "minimum deterrence." Debates on the role of nuclear forces continue in Moscow.

Programs for theater nuclear weaponry will further erode NATO's nuclear advantage in Europe unless NATO takes action to offset them. The Soviets have programs under way to improve the accuracy and flexibility of nuclear delivery systems at all ranges. These include the introduction of new tactical aircraft and short-range ballistic missiles, the continuing deployment of nuclear-capable artillery, and further improvements in the number and quality of weapons long-range theater nuclear delivery vehicles (missile launchers and aircraft) based in the USSR.

At the time of writing, NATO had already taken action—notably the 1979 "Dual-Track" decision to deploy the US Pershing II and Ground-launched Cruise Missile while simultaneously negotiating to constrain Soviet forces. In the event, the INF Treaty, and later the collapse of the Warsaw Pact, led to a fundamental change in the European nuclear balance. Neither was obvious to the authors of the 1981 study, though we did recognize the increasing pressures on the Soviets to pursue negotiations, as well as the strains in the Pact.

Our baseline projection includes improvements in Soviet Ground Forces. They will continue to emphasize the central role of armor; by the end of the decade most major Soviet units (and some units of their allies) will have tanks with advanced armor that provides good protection against current NATO weapons. The introduction of new artillery and air defense systems, as well as organizational changes that involve the addition of combat units and weapons, will increase the capabilities of Soviet divisions to respond to rapidly changing battlefield conditions. New fixed-wing ground attack aircraft and helicopters, with increased ranges and payloads and improved munitions, will increase the vulnerability of NATO's installations and forces and improve Soviet capabilities for close support of ground operations.

These judgments were generally accurate, but suggested a greater Soviet confidence in their forces than they actually had at the end of the 1980s. An NIE written in 1989 stated that "the Soviets have been able to match or exceed NATO's capabilities in nearly every ground forces' weapon category." But it also noted that "The Soviets assess NATO to be a tougher military opponent on the conventional battlefield today than in past decades." This was because of improvements in NATO doctrine and its ability to integrate land and air forces, as demonstrated so vividly in the Persian Gulf war.

With these new systems, we expect Soviet theater forces to keep pace with NATO's modernization programs. The East European forces of the Warsaw Pact will improve less rapidly, however, because economic constraints will limit the amount of modern Soviet equipment they can afford to acquire and maintain.

They did not keep pace, as production rates dropped. Moreover, the non-Soviet Warsaw Pact states experienced not only economic strains but also political upheaval. While we knew that the Eastern European forces would diminish in terms of comparative effectiveness, we did not expect that the Pact would evaporate.

Soviet naval programs will continue to emphasize open-ocean forces and the deployment of air power to sea. These programs will improve the Navy's capabilities to contest areas of the open ocean with the West. Ships and submarines with a new, long-range cruise missile are being introduced to offset Western gains in shipborne defenses. The Soviets are producing nuclear-powered attack submarines at an increasing rate, and the submarines introduced in this decade probably will be quieter (and harder to detect and track) than current models.

Something of an overstatement! (Could it have been due to the fact that the principal author of the 1981 study was a former naval analyst?) By the end of the 1980s, the Soviet Navy had been modernized, but

lacked adequate ASW, air defense, sea-based tactical air support, and naval amphibious lift to sustain long-range operations. The long-range cruise missiles were slower in coming than we anticipated, and submarine production rates were falling at the end of the decade.

Another naval development has important implications for Soviet military power-we have evidence of activities that probably are related to a program for a new aircraft carrier. It could be introduced in the late 1980s and probably would carry standard fighter or attack aircraft and be nuclear powered. (The Soviets have helicopter carriers and ships that carry short-range, vertical and short takeoff and landing aircraft, but this could be their first attack aircraft carrier.) It would improve the Navy's air defenses and-more important-it could inaugurate a capability for projection of air power in distant area. The USSR could not achieve a large-scale capability in the 1980s—only one or two carriers could be available-but this could emerge as a major theme in the 1990s and later.

An exaggeration! We correctly identified the construction program for aircraft carriers, but greatly underestimated the construction time. The first carrier was still not finished at the end of the decade, and it now appears that projection of power to distant areas was not the objective of the limited aircraft carrier program.

With these new forces and capabilities, we expect the Soviets to maintain a high level of activity in the Third World to achieve both military and political goals. They may be willing to use their own forces more actively in the Third World, even if the activity brings a greater risk of confrontation with Western powers.

WRONG! The Soviets came to the end of their rope in Afghanistan, withdrew from Cam Ranh Bay, and generally hunkered down. A case of trying, unsuccessfully, to infer political intentions from military programs.

Alternative Projections. More radical changes in Soviet military policy are possible. Currently available evidence provides no clear indications that they are in the offing, but the interaction of political, economic, and technological forces in the 1980s could conceivably lead to major discontinuities.

Acknowledging that we could have been wrong was a positive step. But we felt compelled to excuse ourselves on the basis that there was no current evidence.

One possibility is that the Soviets will reduce the level of military expenditures absolutely (rather than merely reducing the rate of increase). We believe this is to be unlikely in the near term. Their dim view of the international environment would argue against such cuts, and the guidelines they have published for their next Five-Year Plan imply continued growth in defense spending. We have not detected any evidence that the Soviets are considering reductions.

We correctly acknowledged that what really happened was possible.

Nevertheless, reductions cannot be excluded as a long-run possibility; and, as one alternative projection, we have examined the consequences of a cut in defense expenditures. We believe that to reduce expenditure levels in real terms the Soviets would have to alter the roles and missions of some of their armed forces. They probably would spread the cuts amongst all the military services—making them somewhat deeper in general purpose forces, especially ground forces. General purpose forces are larger than strategic forces, and they take up more of the defense budget and use more of the energy, manpower, and key material resources needed by the civilian economy. Production of general purpose weapon systems competes directly with production of equipment for transportation, agriculture, and manufacturing. (The resources devoted to production

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of strategic weapons, on the other hand, are more specialized and less readily transferable to important civilian uses.)

This proved to be accurate. In 1988, when Gorbachev announced a unilateral reduction in defense spending and forces, he articulated a new doctrinal concept of "reasonable sufficiency" that involved changes in the roles and missions of the services. His cuts affected all the forces, but impacted more heavily on general purpose forces, especially the ground forces in Central Europe and the portions of the USSR west of the Ural Mountains.

Another alternative projection considers the possibility that the Soviets will increase defense spending more rapidly than in the past to support a stepped-up military competition. This effort (focused on either strategic or conventional forces) could expand the forces and improve capabilities more rapidly than is forecast in our baseline projection. The range of program options is broad enough to permit a major increase in defense spending, and Soviet military-industrial capacity is large enough to sustain it. Such an increase would affect the distribution of economic resources significantly, however (especially if it were in conventional forces), and its political consequences could be extremely serious:

- The Soviets' ability to increase investment resources critical to long-term economic growth would be reduced substantially.
- Per capita consumption might decline in real terms late in the decade.
- Key sectors of the economy would be disrupted.

In retrospect, we should have realized that these consequences were so serious that an increased military effort was a real nonstarter.

We do not know at what point the Soviets would find an increased defense burden to be unacceptable. This would depend on the international environment and the outlook of the leaders in power. Judging by their past behavior, we believe that they would prefer, if possible, to keep defense expenditures within their current growth rate, while still pursuing their military goals:

- The Soviets probably will seek to constrain US programs and to reduce their uncertainty about future US capabilities by urging further arms control negotiations.
- They will also attempt, through propaganda and diplomacy, to undermine Western cohesiveness on security issues and to slow the pace of West European defense programs.

They certainly did both of these. But eventually the pain became so great that they took dramatic, unilateral actions.

The Soviets' incentives for such actions will increase as their economic growth slows in the 1980s. But Soviet leaders place a high premium on military power and will not, for economic reasons alone, accept constraints on defense programs that they consider vital to their interest.

A truism! And a lousy way to end an analysis that was, all things considered, pretty good. Of course, the Soviets would not forego programs they considered vital. But what Gorbachev and his colleagues considered vital was somewhat different from what we projected. In sum, we were generally accurate in our projection of Soviet military capabilities in the late 1980s, but underemphasized the possibility of a "paradigm shift"—a dramatic change in the underlying factors that shaped Soviet policy.

Indicators of Change

In its concluding sections, the report explicitly acknowledged the possibility that its assessments were increasingly subject to uncertainty. It described both the conditions that could lead to an accelerated or reduced Soviet military effort and the specific evidence or indicators that might accompany a policy change.

This notion of "indicators" is one that analysts had considered for some time, partly at the urging of the DCI's Military-Economic Advisory Panel, which was charged with overseeing CIA estimates of Soviet military spending and economic performance. A few months after publication of the study, the Office of Soviet Analysis was formed as part of a large-scale reorganization of CIA analysis. The office established an "Indicators Project" to monitor evidence that might lead to a new assessment of Soviet military intentions. A senior analyst was placed in charge, and an annual assessment was planned. Regrettably, because of personnel changes, a systematic effort at monitoring indications of change was never institutionalized.

In retrospect, the indicators described in the 1981 study as signaling a reduced military program were quite accurate. The relevant portions of the report are reproduced below in italics, together with comments on actual developments:

We consider an absolute reduction in military spending unlikely... Under some circumstances, however, the Soviets might feel impelled in that direction.

These include:

 Economic conditions poorer than those we currently project—for example, a series of disastrous harvests causing an actual reduction in economic output.

Poor harvests occurred, further depressing economic growth. Some Soviet economists calculated an absolute decline in the economy during this period.

 The spread of popular unrest from Eastern Europe to the USSR, coupled with the rise to power of political figures sympathetic to the consumers' plight.

Both happened.

 A Sino-Soviet rapprochement, a general lessening of tensions with the West, and a move by West European countries closer to the Soviet orbit and away from US influence. Tensions lessened, largely because Gorbachev tool(b)(1) steps to moderate them. (b)(3)(n)

that would alert us to the change... But no single clue would be adequate to identify a policy shift. We would have to detect at least several indicators, and evaluate them over a year or more, before we could be confident of identifying an actual change...

It took us several years to recognize that major changes were under way. This was because the "soft" evidence—political and economic indicators—preceded the "hard" evidence of actual changes in military programs and forces.

Political. Political evidence of a reduced military effort could include:

 Reports of greater optimism in the Kremlin on the prospects for detente.

Gorbachev proved much more willing than his predecessors to engage with the West on arms control and foreign policy issues, but it took analysts some time to understand this. (A 1989 NIE contained a section entitled "Is Gorbachev's 'Detente' Different?") After meeting initial US skepticism, by the late 1980s Gorbachev found a willing partner for detente in Ronald Reagan.

 The accession to leadership of political figures inclined to support civilian economic activity perhaps even at the expense of the military.

In the mid- and late-1980s, Soviet leaders evinced growing concern about the costs of their military effort and the need to divert resources to rebuild the civilian economy. In 1988 and 1989, Gorbachev announced the first unilateral reductions in military forces and budgets since the 1950s.

• The admission of additional civilian participants to the defense decisionnaking process.

By 1989, the USSR had established a defense oversight committee in the Supreme Soviet, and civilian academics increasingly challenged the military and served as alternative sources of analysis for political leaders.

 A more flexible Soviet stance on arms control; in particular, movement on MBFR could signal a desire to improve economic performance by reducing expenditures on theater forces.

In the mid-1980s, the Soviets became more flexible across the board on arms control, while analysts debated whether their new stance was cosmetic or serious. By the end of the decade, new agreements were in place covering the full range of conventional and nuclear forces.

• Signs of greater tolerance for experimentation in economic management and more sympathy for consumer complaints.

In the mid-1980s, Gorbachev introduced the new concepts of glasnost, broadening the limits of political and economic debate, and perestroyka, major restructuring of the economic system, in an effort to stave off economic decline. A principal objective was to improve living conditions and arrest social decline.

Economic. Economic information that might reflect a reduced defense program could include:

Pessimistic Soviet forecasts of economic growth.

In the late 1980s, Soviet economic performance continued to slide, with agricultural output declining in several years. As early as 1986, Gorbachev expressed the fear that the USSR could become a third-rate power.

• Energy shortages developing early in the 1980s.

Many of our critics charged that we were unnecessarily pessimistic on Soviet energy resources. However, significant energy problems did develop in the late 1980s: oil production fell by 2 percent in 1989 and 6 percent in 1990, and net exports of oil fell by 2 percent in 1989 and some 15 percent in 1990.

 Major shifts in plan targets toward increased investment or consumption at the expense of defense programs.

Against the backdrop of worsening economic performance, the Soviets announced in the late 1980s a 20-percent cut in spending for weapons procurement. Reduction or halting of construction activity at defense plants.

In 1989, the Soviet leaders endorsed conversion of some military production capability to civilian purposes, causing dislocation in military programs.

 Sharp increases, actual or planned, in the output of civilian transportation or agricultural equipnuent.

This equipment was produced at plants that also manufactured tanks and armored vehicles. Gorbachev's 1988 decision to cut back general purpose military forces was an admission that military production was curtailing needed civilian programs.

Military. If the military effort were being cut back, we might also see:

Cuts in weapon testing levels and production rates.

By 1989, the number of strategic delivery systems was decreasing and the number of strategic missile test launches had decreased by 50 percent.

 Dissolution of military units and reorganization or consolidation of forces.

This began to occur in the late 1980s in conventional forces and in the early 1990s in strategic forces.

 Releases of men from active duty and reduced draft calls.

In December 1988, Gorbachev announced a unilateral personnel reduction of 500,000 in the Soviet armed forces, and by the 1990s the conscription system had begun to collapse.

Evidence of debates on the roles and missions of the military services and on the nature of a future war and the goals of military strategy.

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These debates were in full swing by the mid-to late-1980s, and led to a major redefinition of Soviet military doctrine under the concept of "reasonable sufficiency."

Grading Our Performance

Gaddis gives himself a grade of C+ for his predictions regarding the Cold War. The NFAC analysts had a somewhat less daunting, but still challenging task: to make predictions about the future of Soviet military power. To do so, they had to consider both "soft" issues like leadership views and intentions and "hard" issues like weapon system developments. Not surprisingly, the analysts did better at the latter,

The NFAC analysts seem to merit a grade similar to the one Gaddis gives himself for their forecasts of Soviet political developments; we did not do any better or any worse than historians and political scientists outside the Intelligence Community in predicting the end of the Cold War and the collapse of Communism. But we merit a much better grade (say an A-) for having an excellent understanding of weapon systems and programs and for accurately describing most of the capabilities of Soviet military forces nearly a decade in advance. Moreover, we had a good list of "leading indicators," although we certainly could have monitored them more systematically. Overall, a high B!

At the conclusion of his essay, Gaddis asks why historians and social scientists do not do a better job at prediction. Was the NFAC analysis of Soviet military power guilty of the same errors of judgment as Gaddis and his colleagues? The five weaknesses that Gaddis noted were:

1. The assumption that the future will resemble the past.

Guilty! Although we realize that changes in policy were possible, we characterized them as "unlikely." And even when we explored alternative scenarios, we modeled them on historical events—the reduction in military spending under Khrushchev in the late 1950s and the rapid buildup of strategic military forces in the early 1960s.

2. The temptation to return nations into abstractions.

Not guilty! One of the strengths of the NFAC study was that it dissected in minute detail the inner workings of Soviet defense, as we understood them at the time. Even more than a decade later, this is an impressive accomplishment, and the study was genuinely multidisciplinary in bringing together the perspectives of political, military, technical and economic analysts.

3. Neglecting points of intersection between short-term and long-term phenomena.

Guilty of a lesser included offense! We clearly knew what the short- and long-term phenomena were. (They included growing societal ills, a faltering economy, and an uncertain political succession on the one hand; and the momentum of military programs, Soviet desire for international power, and the threat from a rearming West on the other.) And we knew that they were intersecting. We did not, however, know how to weight the various phenomena, which were pushing Soviet decisionmaking in different directions. In the end, we opted for the conservative assumption that the forces for continuity would outweigh those for change.

... We believe that we have identified most of the weapons... that will shape the evolution of Soviet military power over the next decade. That knowledge, plus our understanding of Soviet decisionmaking and of the military, political and economic environment in which it takes place, leads us to believe that Soviet forces and doctrine will develop much as outlined below.

There followed a series of projections that gave the greatest emphasis to continuation of current forces and policies. This proved to be accurate for most of the decade, with the major changes not beginning in earnest until 1988.

4. Ignoring the role of personalities.

Guilty, but with mitigati	ing circumstance(b)(1)
	(b)(3)(c)
	(b)(3)(n)

41



(b)(3)(n)

(b)(1)(b)(3)(c)(b)(3)(n)

We also co-

vered the implications of both the Soviet political succession and possible changes in the military leadership. On page 57 of the study there are photographs of six potential successors to Brezhnev, including one labeled "M S. Gorbachev, Party Secretary." The text reads:

Gorbachev, 50, is the youngest of the top leaders and is responsible for agricultural policy; his views on defense and national security issues are unknown. He reportedly has opposed liberalization in Eastern Europe.

On the other hand, there is no photo of Yuriy Andropov. During the coordination process, one of the analytical offices insisted that he be deleted from the list, because the Soviets would never appoint a KGB Chairman as General Secretary. In short, we knew that personalities mattered, but knew too little about both the individuals and the selection process.

5. Chance. Unpredictable events, by definition, defy prediction!

Nolo contendere. We did not predict the unpredictable, but we did say:

We cannot rule out the possibility that Soviet military programs in the 1980s will differ from our baseline projection because our evidence, though fairly definitive on future weapon systems, is less conclusive in such areas as the political succession and is too general to pinpoint the foreign policy environment and economic performance in any given year. But it is precisely these less predictable factors that could make the greatest difference in Soviet policies.

In retrospect, we might have noted more forcefully that the increasingly complex environment for Soviet decisionmaking on military programs heightened the possibility that chance events could result in sharp discontinuities. "We cannot rule out the possibility" is a real cop-out! Certainly, however, the role of unpredictable

events in the actual development of Soviet military power should make us more humble about our powers of prognostication.

So What?

In another essay, Gaddis asks whether good intelligence in fact makes any difference in policy.' He quotes Yale historian Robin Winks as asking "So, what difference does it make that . . . Hitler had one testicle, that Sicilians still use sixteenthcentury vulgarisms, that narrow-gauge track is not the same in New South Wales as in the Sudan."* The same question has been raised in a series of case studies conducted by the Kennedy School of Government, Harvard University, under the CIA-sponsored Intelligence and Policy Program." The answer seems to be that the influence of intelligence on policy depends more on the policy process itself than on the quality of intelligence.

In the case of analysis of Soviet military programs in the early 1980s, it is difficult to imagine that better analysis would have made much difference to policy. To assess this we have to indulge in what historians call "counterfactual" analysis. Hold everything else constant and alter the variable of interest, then try to imagine what might have happened. For example, if Cleopatra's nose had been two inches longer . . .

Let us imagine that CIA discerned as early as 1983 that a significant unilateral reduction in the Soviet military effort at the end of the decade was increasingly likely." Would this have altered key elements of the Reagan Administration's defense strategy such as the buildup of American strategic forces, the 600-ship Navy, the "Zero-Option" proposal for the Intermediate-Range Nuclear Force negotiations, or the Strategic Defense Initiative (SDI)?

Frankly, it seems highly unlikely. The buildup was managed by officials whose views of the USSR were shaped by the Committee on the Present Danger and the so-called B-Team-defense analysts who regarded the



Intelligence Community's views with skepticism, if not contempt." The 600-ship Navy was the brainchild of a forceful Secretary of the Navy with strong support from the President. The Zero-Option was the outcome of political bargaining among presidential advisers, and intelligence played essentially no role in the policy decision (although it was useful in policy implementation). And SDI resulted from the coincidence of President Reagan's vision of a nuclear-free world with the technological hopes of a few key scientists, especially Edward Teller. The president's principal national security advisers (let alone intelligence analysts!) knew next to nothing about it until the last minute.

Perhaps over time, as the indicators became stronger, intelligence on changes in Soviet military programs might have made a greater difference at the margin. But, again, the influence of political processes and personalities seems to be greater. Would President Reagan have been even more adventuresome at Reykjavik if he had been armed with intelligence showing that Gorbachev's reforms would lead to loss of Communist Party control? It is hard to imagine that he would. Moreover, since Reagan became an ardent arms controller, Gorbachev fell for domestic political reasons and the West eventually won the Cold War, it is tempting to task again, "So what?"

Explanation Versus Prediction

Perhaps the most important "so what" is that the Intelligence Community was essentially correct in its understanding of the factors that influenced and explained Soviet military policy, and in its assessment of Soviet military capabilities nearly 10 years in advance. This is an achievement of great importance, unprecedented in the history of intelligence. It resulted from a confluence of sophisticated technical collection capabilities, oldfashioned espionage, creative analytical methodologies and sound scholarship. That we did not do a better job of predicting the fall of Communism is regrettable but not surprising. After all, as Gaddis has noted more recently, social science failed in predicting the end of the Cold War, and intelligence is in the final analysis dependent on the methods of the social and physical sciences.15

What is of more concern is how well the Intelligence Community-and specifically NFAC and its successor organization-capitalized on its understanding to help policymakers understand the dynamics of Soviet military policy and the influence their own actions might have on it. Again the record is mixed. Many of the participants in the 1981 study went on to positions that gave them direct contact with policymakers and the ability to provide intelligence support to negotiations and policy decisions. But others took assignments that were at best peripherally related to the expertise they gained and—as we have seen—the "indicators" effort foundered because of personnel reassignments. All of this suggests that the influence of the analysts' understanding on the policy process was less purposeful than might be hoped for.

The key lessons in this experience seem to be:

- Intelligence has a comparative advantage when intelligence sources or methodologies make a major contribution to analysis, and does better than academia in integrating the expertise from different disciplines. This permitted us to forecast Soviet military capabilities with good accuracy.
- Ultimately, intelligence insights on the softer areas of political trends depend on the methods of the social sciences, which have proved to be ineffective in predicting major changes in the international system. Hence, our performance was poorer in forecasting Soviet political choices than in projecting military forces.
- Intelligence, like the social sciences, is likely to be better at explaining than predicting, because of the expertise of its people and the high quality of its written products and briefings.
- Intelligence analysis should discuss alternative futures, together with the conditions that could lead to discontinuities abroad and indicators of impending change. Equally important, the systematic monitoring of key indicators should be institutionalized, and bureaucratic procedures or personnel systems that interfere with this task should be reexamined.

- Expertise is difficult to build and should not be dissipated for reasons of personnel management or organizational convenience. Intelligence organizations should foster and protect expertise, and ensure effective interaction between intelligence and policy officials.
- No matter how accurate the explanations or predictions of intelligence analysts, in the final analysis policy depends more on political factors and the values and mind-sets of leaders than on intelligence.

NOTES

- 1. The article appeared in *The Atlantic*, CCLX (November 1987), pp. 88-100.
- 2. John Lewis Gaddis, *The United States and the End of the Cold War.* (Oxford, Oxford University Press, 1992), pp. 133-154.
- 3. The research process was described in "A Procedure for Managing Interdisciplinary Intelligence Production," Studies in Intelligence, fall 1981, p. 37.
- The comments are based either on well-known historical facts or on the descriptions of Soviet military forces in NIEs from the late 1980s and early 1990s.
- See, for example, US Congress, Joint Economic Committee, Gorbachev's Economic Plan (Washington, US Government Printing Office, 1987) p. 494.
- 6. Gaddis (1992) pp. 153-4.
- 7. "Intelligence, Espionage and Cold War History," in Gaddis (1992), p. 94.
- 8. Robin W. Winks, Cloak and Gown: Scholars in the Secret War, 1939-1961 (New York, Morrow, 1987), p. 63.

- 9. Case Book: Intelligence and Policy Project (Cambridge, Harvard University, 1991).
- 10. This would have been difficult to predict, as there was at that time no clear evidence of significant changes in Soviet military programs, although we did see a slowdown in Soviet military procurement. More definitive evidence did not become available until after Gorbachev took office.
- 11. See Anne Hessing Kahn and John Prados, "Team B: The Trillion Dollar Experiment," Bulletin of the Atomic Scientists, April 1993, pp. 22-31.
- L. Keith Gardiner, INF Deployment: The Role of Intelligence Analysts in a Policy Success
 (Washington, Center for the Study of Intelligence, 1993)
- 13. George P. Shultz, excerpts from *Turmoil and Triumph, Time*, 10 May 1993, pp. 50-51.
- 14. "The Unexpected Ronald Reagan" in Gaddis (1992), pp. 119-132.
- 15. "International Relations Theory and the End of the Cold War" *International Security*. winter 1992/93, pp. 5-58.

This article is SECRET (b)(3)(n)